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ABSTRACT

Written for use with students in grades nine through twelve, this handbook links natural ecological issues with language arts instruction. It contains a series of lesson plans, each offering a number of suggested learning activities for use both in and out of class. The lessons are built around 12 major environmental concepts that form a framework for each subject area. In addition, each lesson offers subject area integration, multidisciplinary activities, cognitive and affective behavioral objectives, and suggested reference and resource materials for both the teacher and students. (PL)

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ENVIRONMENTAL EDUCATION GUIDE
LANGUAGE ARTS 9-12

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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CS204 803 -

# FORWARD TO PROJECT I-C-E ENVIRONMENTAL EDUCATION GUIDES

In 1969, the First Environmental Quality Education Act was proposed in the United States Congress. At the time of the introduction of that legislation, I stated:

"There is a dire need to improve the understanding by Americans of the ominous deterioration of the Nation's environment and the increasing threat of irreversible ecological catastrophe. We must all become stewards for the preservation of life on our resource-deficient planet."

In the three years since the Environmental Education Act was passed by the Congress, much has happened in the United States to reinforce the great need for effective environmental education for the Nation's young people. The intensive concern over adequate energy resources, the continuing degradation of our air and water, and the discussion over the economic costs of the war against pollution have all brought the question of the environmental quality of this nation to a concern not merely of aesthetics but of the survival of the human race.

The intense interest by the public in the quality of our lives as affected by the environment clearly indicates that we cannot just use incentives and prescriptions to industry and other sources of pollution. That is necessary but not sufficient. The race between education and catastrophe can be won by education if we marshall our resources in a systematic manner and squarely confront the long-term approach to saving our environment through the process of education.

As the incessant conqueror of nature, we must reexamine our place and role. Our world is no longer an endless frontier. We constantly are feeling the backlash from many of our ill-conceived efforts to achieve progress.

Rachel Carson's theme of "reverence for life" is becoming less mystical and of more substance as our eyes are opened to much of the havoc we have wrought under the guise of progress. A strong commitment to an all-embracing program of environmental education will help us to find that new working definition of progress that is a pre-requisite to the continued presence of life on this planet.

- Senator Gaylord Nelson

## LANGUAGE ARTS PREFACE

Youth need ecology and ecology needs youth. The natural, physical world in which young people live needs to be made relevant to their school studies. Young people have a completely absorbing interest in the world of nature around them. One of the reasons for this handbook is to attempt to link natural ecological issues with language arts instruction.

This environmental handbook is written for high school students. Although the twelve environmental concepts are scientifically oriented, the attempt here is to relate them directly to the various English skills--reading, writing, listening, speaking--all of which have as their purpose making the student a more capable functioning member of society.

An example of the specific skills presented in this handbook is that of writing. As is the case with each skill, the skills of learning to write, from working with the paragraph, through formulating the essay, to writing the research paper itself, are tied closely with an ecological concept. For example, the coherence, unity, and development of the topic sentence or thesis created in writing can easily be seen to be analogous to the importance of man' fitting into his ecosystem in a coherent, unified, directed manner. In short, the importance of the parts' relationship to the whole is vital both in writing--an English skill--and in the study of ecosystems--a survival skill.

More than ever before, man's capacity for survival is threatened by his inability to recognize the ecological destruction which he wreaks on his physical world. As true humanists, English teachers must be ready to help man see himself as one entity, a being with great capacities--mentally, physically, spiritually--for beneficial ecological growth. English teachers must not pretend, for example, that the beauty of fine verse, the finely tuned logic of an essay or a fictional work, have nothing to do with that "outside" world in which men live. We must help ourselves and others to see that beauty or ugliness of our physical world has a direct bearing on individual man's perception of beauty in literature. The skills of English, those uses of language which help us toward becoming more fully human, must be brought to bear on the creation of an ecologically sound, and therefore aesthetically pleasing, world. This, then, is the purpose of this handbook.

## DIRECTIONS FOR USING THIS GUIDE

This guide contains a series of episodes (mini-lesson plans), each containing a number of suggested in and out of class learning activities. The episodes are built around 12 major environmental concepts that form a framework for each grade or subject area, as well as for the entire K-12 program. Further, each episode offers subject area integration, multi-disciplinary activities, where applicable, both cognitive and effective behavioral objectives and suggested reference and resource materials useful to the teacher and students.

1. This I-C-E guide is <u>supplementary</u> in design--it is not a complete course of study, nor is its arrangement sequential. You can teach environmentally within the context of your course of study or units by integrating the many ideas and activities suggested.

2. The suggested learning activities are departures from regular text or curriculum programs, while providing for <u>skill development</u>.

3. You <u>decide when</u> any concepts, objectives, activities and resources can conveniently be included in your unit.

4. All episodes can be adapted, modified, or expanded thereby providing great flexibility for any teaching situation.

5. While each grade level or subject area has its own topic or unit emphasis, <u>inter-grade coordination</u> or <u>subject area articulation</u> to avoid duplication and overlap is highly recommended for any school or district seeking effective implementation.

This total K-12 environmental education series is the product of 235 classroom teachers from Northeastern Wisconsin. They created, used, revised and edited these guides over a period of four years. To this first step in the 1,000 mile journey of human survival, we invite you to take the second step--by using this guide and by adding your own inspirations along the way.

## PROJECT I-C-E TWELVE MAJOR ENVIRONMENTAL CONCEPTS

1. The sun is the basic source of energy on earth. Transformation of sun energy to other energy forms (often begun by plant photosynthesis) provides food, fuel and power for life systems and machines.

2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

3. Environmental factors are limiting on the numbers of organisms living within their influence. Thus, each ecosystem has a carrying capacity.

4. An adequate supply of clean water is essential to life.

5. An adequate supply of clean air is essential for life.

6. The distribution of natural resources and the interaction of physical environmental factors greatly affect the quality of life.

7. Factors such as facilitating transportation, economic conditions, population growth and increased leisure time influence changes in land use and population densities.

8. Cultural, economic, social, and political factors determine our values and attitudes toward the environment.

9. We have the ability to manage, manipulate and change our environment.

10. Short-term economic gains may produce long-term environmental losses.

11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

12. Each person must exercise stewardship of the earth for the benefit of all.

A "Concept Rationale" booklet and a slide/tape program "To Love and Respect the Land" are available from the I-C-E RMC to more fully explain these concepts.

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E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:** **Integrated with:**

**CONCEPT NO.** 1-Energy **SUBJECT** Language Arts (9-12)

**ORIENTATION** What are the sources of life? **TOPIC/UNIT** Imaginative Expression

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Illustrate his idea of the sources of life through imaginative expression.

**Affective:**

Respond to his classmates' ideas by asking questions and making comments on the presentations of his peers.

**Skills Used:**

1. Oral expression
2. Visual interpretation
3. Writing skills

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. The teacher could instruct students to bring a sample of any kind of seed to class. After indentification of the seeds, this sharing can stimulate a wider discussion of the sources of life. Any of the other ideas under "Outside or Community" may be substituted. They could then be asked to react to this discussion through some form of imaginative expression.

1. Children's book
2. Movie
3. Slide set
4. Creative dramatic
5. Picture book
6. Poster, Bulletin Board
7. Visual or sound montage
8. Collage
9. Original Story: telling or reading.
10. Mobile

(continued)

**Outside or Community:**

A. A "nature walk" to any suitable area in which the students can observe sources of life and record examples to stimulate discussion and/or imaginative expression.

B. The local children's librarian could be asked to select and present a number of children's books that illustrate the theme of sources of life.

C. The teacher could compile a group of pictures or slides that illustrate the theme and show these to the class as a stimulus.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|

**Publications:**

Kodak's "How To Make A Movie"
Media and Methods (Monthly Periodical)
The Lorax Dr. Seuss
Fifteen One-Act Plays, Gore Vidal
Energy Sources, Thier, Herbert
Rand McNally & Co., 1969.
ICE RMC 110 Th
Energy and Power, Environteam, ESEA
Project POE-Mark Onesty; Florida, 1972. ICE RMC 180 En

**Audio-Visual:**

Films:
"Men At Bay" ICE RMC #250 (25 min.)
"One Day at Teton Marsh" ICE RMC #200 (2 parts - 48 min.)
"Junkdump" ICE RMC #310 (20 min.)

Filmstrip:
Ecology and Man Series, "Energy Relationships" FS St #9, Set 1 - Number 3, ICE RMC

**Community:**

Children's Library
Area Suitable for Nature Walk

IN-CLASS (Continued)

B. A "share day" can be planned for students to contribute their projects to other classes.
(See attached pages 11, 12, 13, 14.)

Project I-C-E
1927 Main Street
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WHAT'S LANGUAGE ARTS? THE GROWTH OF SPEAKING, LISTENING, READING, AND WRITING SKILLS TO COMMUNICATE IDEAS AND FEELINGS.

The outdoor environment provides an excellent resource for the stimulation of language arts activities. The outdoor laboratory stimulates a creative response which can be either real or imaginative.

A great amount of understanding about one's environment can be achieved through the communication skills. In order to communicate how one perceives the environment one must use all his senses to observe his environment. This will help the individual to learn, question, understand, appreciate, and enjoy the out-of-doors. New words are learned and used when communicating about the out-of-doors.

Some of the most productive language arts activities evolving from outdoor experiences are creative writing and oral expression. Vocabulary building will be automatic with each new experience.

Descriptive writing may be a starting point for many pupils. Subjects such as "Now that you have visited the watershed project, what are your feelings about the conservation of water change?" Or, "What did you like most about your outdoor school experience?" are possible as catalysts for descriptive writing.

The sharing of experiences and the dramatization of experiences are possiblities for the translation and reinforcing of basic conceptual schemes.

## Suggested Language Arts Activities

1. Note-taking (field notes)
2. Leter writing
3. Creative writing, such as poems or stories
4. Storytelling
5. Reading stories and poems
6. Writing diaries or logs, newspapers, songs, or menus
7. Use of outdoor school library for reference reading
8. Labeling and identifying field specimens
9. Dramatizations
10. Role playing
11. Making charts, posters, and bulletin board displays

"READING MAKETH THE FULL MAN"
"CONFERENCE MAKETH THE READY MAN, AND WRITING MAKETH THE EXACT MAN."
FRANCIS BACCON

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To feel the pains and pleasures of a reading, speaking, or writing task take the real route. Read, speak, and write with your students. Maybe you forgot how hard it is to "be ready" or "exact." You forge new communicative roads,--especially by experiencing the speaking and writing process with the students and then "talking out" what they're going through, what you're going through. As a teacher, speaker, writer can you satisfy yourself by:

1. Describing a natural object (leaf, bark, stone, etc.) in no more than fifty words. Can you make us see, touch, smell, or feel it. Can you appeal to our senses? Will you give students a copy of your description?

2. Explaining in more than five sentences a natural cause--effect pattern you saw or sensed at Trout Creek or during some outdoor experience.

3. Tape-recording natural sounds. Then describe (speaking, writing them to one who hasn't heard them.)

   Like to try it? If taping is bothersome, then rely on memory.

4. Contrasting (orally, visually, or in writing) one natural object, animal, scene, or one part of the outdoor area with another.

5. Selecting a pattern, one natural object, and a specific audience.

   a. Choose an organizational pattern (top to bottom, left to right, diagonal, circular, high to low, etc,.) befitting your selected natural object.
   b. Use a mode of expression you feel comfortable with--writing, speaking, visual...
   c. Direct your pattern and mode to a specific audience. Whenever we communicate, we are choosing someone special. Let's appeal to "special audiences." How could we deny our ideas and feelings directed towards Fred, Pete, and Mary? Do we ever really write to "someone" or "anyone?" How could we? They're nobody. But, Fred lives, my younger brother listens to me, and you're someone very unique reading this right now. I believe it; so do you, so should students--when they write or talk.

6. Share your most enjoyable, most enlightening, or exciting outdoor experience. We're your audience. You must let us enjoy your experiences, too. We want your new ideas, your excitement. Share that special area, color, plant, footpath, or feeling-whatever you choose to write, speak, or show us non-verbally. Keep in mind the feeling you want us to have as a result of your words or image.

7. Choosing your own quotation from memory, reading, or some source. Relate it (writing, speaking, illustrating) to nature or a natural object, animal, season, or phenomenon. Let the quotation skyrocket your strong feeling; let your words shape your experiences.

NEED MORE IDEAS? READ ON.

"AND THIS OUR LIFE...FINDS TONGUES IN TREES, BOOKS IN RUNNING BROOKS, SERMONS IN STONES, AND GOOD IN EVERYTHING." SHAKESPEARE

1. USE THE SENSES as stimuli for creative writing. Let students have their own "quiet time" to see, hear, smell, taste, touch. Then their experiences springboard into description, poems, narration, personification, "reaction" writing or some open-ended approach.

2. SPOT IDEAS OR THEMES IN NATURE. Then talk, write, or illustrate them. Here are some themes:

| | |
|---|---|
| Patterns | What, where, when, how, and why do these ideas or themes occur in nature? |
| Change | |
| Interaction | |
| Adaptation | These themes occur daily in Trout Creek and in all of nature. In fact, these themes occur right in school, playground, or at home. Let students discuss, write, or illustrate one or more themes at Trout Creek and elsewhere. |
| Energy Sources | |
| Man's Actions | |

On your walk today, what changes, interdependence, interaction, etc, did you notice? Have you observed such themes elsewhere? Can you describe them; write comparisons/contrasts.

3. "TONGUES IN TREES"...Does our environment--both natural and man-made--communicate to us?
   What are the signs, symbols, form, features, or sensual messages--of growth and decay?
Speak, write, or illustrate "nature's talk." Later, explore "human non-verbal signs" of varying emotions, ideas, or social modes.

Ask yourself and students: How do people tell us things--without words? Students can respond to this. The speaking and writing possibilities are many. Observe and sense nature's signs. This is the stimulation, the kickoff experience for talking, writing, and illustrating. Many experts feel that how we say something along with its accompanying actions has more impact than the actual message content.

4. CREATE A FEELING, POEM, STORY, OR...about an outdoor experience, favorite place, tree, plant, or animal.

This one is open-ended. You can add these guidelines if you like:
a. Please illustrate your written or spoken creation with drawings, collage, pictures, etc.

b. Choose a specific audience. After all, we do communicate with special people and groups. 4th graders? 1st graders? younger brothers or sister? other teachers?

5. ESCAPE AND BE A NATURAL OBJECT OR CREATURE. Ignite imagination and believe you're a winter animal or a favorite natural object. Ground rules? Use the first person and use hearty details. Tell us--written or spoken. Where you live, why you live there, and how you help other animals, plants, or man. Why wait? Escape!

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Credits: Sally Kinney
Harrison County High Sch.
Cynthiana, Kentucky

12

EXERCISE #5

Title of Lesson: Using Our Senses

Purpose: To give students the experience of writing creatively about what they observe through their senses.

Behavioral Objectives: At the end of this lesson 75% of the students will be able to:

1) Write a 100-word paragraph describing 5 things they have seen, heard, smelled or felt during a 30-minute period in an outdoor setting.
2) Point out in their paragraph, 5 words that help the reader understand exactly the experience described in the paragraph.

Materials Needed:

Grammar book section dealing with writing descriptive paragraphs and using sensory language.

Activities:

1) Discuss the importance of using words which are specific in description such as colors, sizes, shapes, textures.
2) Discuss the use of comparisons and contrasts in describing things that are unfamiliar to the reader such as "dandelions sprinkled across the field like yellow polka dots on green velvet."
3) Take a walk and take notes on things heard, seen, smelled or felt while out-of-doors.
4) Read paragraphs aloud to show similarities among people's observations and differences in their descriptions of what they saw.
5) Re-write paragraph which student considers his most successful.

Evaluation:

Grade student's paragraph to determine whether the student recorded 5 impressions from his experience outside and used 5 exact words to describe his experience.

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

Environmental: Integrated with:

CONCEPT NO. 2 - Ecosystem SUBJECT Language Arts (Beginner Level)

ORIENTATION Is man an island? TOPIC/UNIT Writing - Deduction Paragraph

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Describe the relationship between coherence, unity, and order in paragraph witing and the coherence, unity and order of the ecosystem.

Explain why man must be considered a part of the ecosystem rather than an entity in himself.

**Affective:**

Support a topic sentence through the deductive method of paragraph development.

Accept the fact that nature is constantly changing, whether man is present or not.

**Skills Used:**

1. Paragraph development.
2. Writing topic sentences
3. Seeing parallels

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. The teacher offers a choice of topic sentences and asks the students to develop one using examples or reasons from his own experience.

Suggested topic sentences:

1. Nature is in a constant state of flux.
2. Although considered a superior species, man is nevertheless only a part of a vast and intricate ecosystem.
3. In order to insure his survival, man must learn to fit into, not try to conquer, his environment.

B. The teacher provides a stimulus for writing on the ecosystem topic (see "Outside or Community" Activities). Students react with a topic sentence and develop that idea with supporting statistics, details, examples or reasons.

**Outside or Community:**

A. A science teacher could be asked to demonstrate the ecosystem, concentrating on the unity and order of natural balance.

B. The class could visit a wildlife management area to see the ecosystem operating efficiently.

C. The teacher could show a film, video tape or filmstrip (suggestions on p. 16) which illustrates the concept.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>1. Wang, J.Y. Editor Man and His Environment: Interaction and Interdependence, conference of Env. Sciences Institute, San Jose, 1969, ICE-RMC, 160 Wa.<br><br>2. National Park Services, Environmental Education in the Public Schools U.S. Dept. of Interior, 1970. ICE-RMC-120 np<br><br>**Audio-Visual:**<br><br>FILMS:<br>"A Slice of Bread" - Sterling Ed. Films, 1971. ICE-RMC-330 (16 min)<br>"Harmony" King Screen Prod. 1971. ICE-RMC-340 (15 min) VIDEO-TAPE<br>POSSIBILITIES:<br>"Primal Man" Series<br>"Jacques Costeau Specials"<br>"Seven Seas" Series<br>FILMSTRIPS:<br>Ecology ICE-RMC FS-ST 14<br>Ecological System Imperial Films Co., Florida, ICE-RMC, FS. St. 19.<br><br>**Community:** | |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:** **Integrated with:**

**CONCEPT NO.** 2 - Ecosystem **SUBJECT** Language Arts (Intermediate)

**ORIENTATION** Is Man an Island? **TOPIC/UNIT** Writing Expository Essay

## BEHAVIORAL OBJECTIVES

**Cognitive:**

The student will identify the thesis inherent in a given selected related reading, state the thesis in a sentence and support it in a formal essay.
Compare thesis statements paragraph and complete stories on articles to parts of an ecosystem and an ecosystem.

**Affective:**

Value the ability to synthesize as a result of experiencing the process of discovery.
Accept the fact that an ecosystem is made up of many parts just as a story or article is made up of many parts.

**Skills Used:**

1. Reading
2. Analysis
3. Essay writing

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. The teacher will provide essays which pertain to the theme of Walden-like experiences or experimentation. See Suggested Resources (p. 18)

   1. Students will analyze the essays for statements relating to the concept of the ecosystem.
   2. Students will compose a formal essay in which they present the thinking which is their analysis and conclusions of the reported experience.

B. A speaker could be invited to address the class on the subject "Is Man an Island?" Some possible guests could be a nonconformist of local reputation, a social worker a guidance counselor or a conservationist. The lecture could be taped and later analyzed by the class for main ideas which could serve as

(Continued)

**Outside or Community:**

A. The essay writing exercise could be initiated with a class trip to a natural area where various aspects of the ecosystem might be observed.
B. Local news accounts of pollution or other behavior disregarding the ecosystems delicate balance could be used to stimulate ideas.
C. Use ICE field activity guide "He Said What? Well, Here's What I Think!" ICE RMC.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
| --- | --- |
| **Publications:**<br><br>Faulkner's acceptance speech for the Nobel Prize<br><br>Four in a Wild Place, John Stallard<br><br>Walden, Thoreau<br><br>**Audio-Visual:**<br><br>FILM:<br>"Gone With the Antennas", BAVI<br>FILMSTRIPS:<br>Interactions and Environments, ICE RMC, FS St #16.<br>Man and His Environment In Harmony and In Conflict, Center for Humanities, New York, 1970. ICE RMC, Kit #34.<br><br>**Community:** | INCLASS (Continued)<br><br>thesis statement possibilities for students. |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:**

**Integrated with:**

**CONCEPT NO.** 2 - Ecosystem

**SUBJECT** Language Arts (Advanced)

**ORIENTATION** Is man an Island?

**TOPIC/UNIT** Writing and Research-Research paper.

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Research, organize, and write a short research paper, using an ecological topic.

**Affective:**

Conclude that man's manipulation of one element of the ecosystem will result in various effects upon the other elements of the system.

**Skills Used:**

1. Research
2. Organization
3. Note-taking
4. Bibliography writing

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. Students select a topic to be researched dealing with the concept of the ecosystem.

EXAMPLES:

1. The wolf population on the Isle Royale.
2. Near extinction of the bald eagle.
3. Dutch elm disease
4. American chestnut tree decimation
5. DDT controversy
6. Noise pollution
7. Urban, through teacher directed learning lessons, students research, organize and write a 5-8 page re search paper on the topic of their choice.

B. Students research the various aspects of his community or school "ecosystem" examining the various roles played by each member within the social unit, they then orgainze and write a 5-8 page research paper, complete with bibliography.

**Outside or Community:**

A. A field trip to a local natural area could provide the student with the experience of seeing a well-balanced ecosystem functioning efficiently.

B. A DNR representative, a conservationist or a city engineer could be invited to speak to the class on any of the suggested topics at the left.

C. Students could contact experts in their topic areas as part of their research.

1. Field trip to natural area near your school or community.
2. Conservationists
3. DNR representative

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
| --- | --- |
| **Publications:**<br><br>"Speaking by Doing"<br>National Textbook Company<br>Skokie, Illinois<br>Magazine:<br>"Vital Speeches"<br>Manual of Style - Turabian<br>Interaction and Systems<br>Science curriculum Improvement Study, Univ. of Calif. Berkeley, 1970. ICE-RMC-100Br.<br><br>**Audio-Visual:**<br><br>Filmstrip: "Man-Managed Eco-systems" McGraw-Hill, ICE-RMC #11-1.<br>Crisis of the Environment The New York Times, 1970. ICE-RMC Kt. 6.<br><br>**Community:**<br><br>Guest speakers knowledgeable of suggested subject areas. | |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:** **Integrated with:**

**CONCEPT NO.** 3-Carrying Capacity **SUBJECT** Language Arts (Beginner Level)

**ORIENTATION** Can our earth sustain us? **TOPIC/UNIT** Oral Communication - Speech

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Organize and produce a program, using his research and imaginative skills, in writing and speaking.

**Affective:**

Evaluate his own feelings toward mankind and his environment and interpret them.

**Skills Used:**

1. Organization
2. Speaking
3. Research

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. The student will research and present comtemporary materials dealing with the third concept in the form of a "Today" show.
   1. Ask class what procedures would have to be followed to organize a presentation centering on these themes.
   2. Ideas could include:
      a. Use of reference materials
      b. Consulting of periodicals
      c. Division of class into groups for more direct study
      d. Preparation of scripts
      e. Use of visual aids
         1. pictures (clipped & framed)
         2. Student prints and slides showing activities dependent on pure water and clean air.
      f. Choosing of commentators, (continued)

**Outside or Community:**

A. Library - Find essays, articles and other materials that are pertinent to the concepts. Emphasize the necessity to edit and combine these materials to add originality to show.

B. Assign the viewing of contemporary documentary shows such as "First Tuesday" and "60 Minutes" to gather ideas and techniques for the class presentation.
   1. Students should make notes about attention-getting techniques and elements of good reporting.
   2. Emphasize the importance of timing and originality in these presentations.
   3. Portions of a good speech text should be assigned for outside reading.

C. As part of the show, interviews of individuals in the community could be used. Such individuals as doctors, (CONTINUED)

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>U.S. News & World Report<br>Newsweek<br>Time<br>National Geographic<br>Newspapers<br>Speech Text<br>Media Resource Materials<br>McCue, George Ecology (Series), Benziger, Inc., New York, 1971. ICE-RMC-130 MC: 1-10.<br>30 Basic Speech Experiences<br>Clark Publishers (continued)<br>**Audio-Visual:**<br><br>News programs - TV and Radio Films<br>Family Planning - Walt Disney Educational Materials Co., 1968. 10 min. ICE-RMC #230.<br>1985 Metromedia Television 56 min. ICE-RMC #520<br><br>**Community:**<br><br>Newsmen<br>Public Librarian | In-Class (continued)<br><br>technicians and directors for the actual show.<br>B. Show class 1985 film, (See p. 22). Ask students to create their own fictional newscast for the year 2000.<br><br>Outside or Community (continued)<br><br>dentists, lawyers, factory workers.<br><br>Publications: (continued)<br><br>(The included materials are generally presented with the understanding that the possibilities are unlimited and the breadth of this activity is very open-ended.) |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:** **Integrated with:**

**CONCEPT NO.** 3 - Carrying Capacity **SUBJECT** Language Arts (Intermediate)

**ORIENTATION** Can our earth sustain us? **TOPIC/UNIT** Oral Communication - Drama

| BEHAVIORAL OBJECTIVES | STUDENT–CENTERED LEARNING ACTIVITIES | |
|---|---|---|
| | **In-Class:** | **Outside or Community:** |
| **Cognitive:**<br>Identify and evaluate the isolated actions of dramatic characters in conflict with social and/or internal forces of crowding. | A. The student will orally read the play Street Scene, West Side Story, or Death of a Salesman. After reading and discussion, the students will break into small groups, write and produce a skit, the theme being "how mankind is exceeding the earth's carrying capacity." For example, the skit could dramatize the sociological effects of overcrowding in an urban area.<br>B. Show the film Boomsville. In discussion, help students to see the possibilities of effective drama without use of narration. Instruct the students, in small groups, to create and produce a skit (on some aspect of Concept 3) using no dialogue-Music and sound effects only. | A. Have students observe in their community and come up with overloading of carrying capacity. (traffic jams, overcrowded slums, water pollution, etc.)<br>B. Interview people who have lived in a large city regarding their attitudes on city life, and their ideas as to what can be done to improve the negative aspect. |
| **Affective:**<br>Deliberately examine a variety of responses in literature, to an overcrowded environment. | | |
| **Skills Used:**<br>1. Oral Interpretation<br>2. Group discussion<br>3. Play writing<br>4. Play production | | |

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| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
| --- | --- |
| **Publications:**<br><br>Street Scene - Elmer Rice<br>Death of a Salesman - Henry Miller<br>West Side Story - Arthur Laurents<br><br>**Audio–Visual:**<br><br>Boomsville - Learning Corp. of America, New York, 1972. 10 min. ICE-RMC-400.<br>Environmental Quality Index.<br>America Is In Trouble - National Wildlife Federation, 1970. ICE-RMC-Kt. 9.<br><br>**Community:**<br><br>Speech & Drama Teacher | |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:**

**Integrated with:**

**CONCEPT NO.** 3 - Carrying Capacity

**SUBJECT** Language Arts (Advanced)

**ORIENTATION** Can our earth sustain us?

**TOPIC/UNIT** Oral Communication - Debate

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Compare voluntary population limitation with government controlled population limitation.

a. people's attitude
b. inequities
c. measures used

**Affective:**

Demonstrate an understanding of the complexities of the relationship between and the limitations of the earth's resources.

**Skills Used:**

1. Organization
2. Research
3. Critical thinking
4. Oral presentation

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. Organize a debate which features a local issue related to the carrying capacity of the earth. For example:
   1. Individual rights vs. community rights.
   2. Mass transportation vs. individual cars.
   3. Population limitation vs. population explosion.
   4. Forests for industry vs. forests for recreation.

   Debate groups will present affirmative and negative sides, and rebuttals. Optional - questions from floor.

B. Have students play simulation game - New Highway Game. Divide class into six teams, each one representing one of the game's six groups. Each team presents its arguments in debate form, an impartial third party (perhaps a guest class) declaring the winner.

**Outside or Community:**

A. A debate coach could be invited to give a short presentation aiding the class in refining its positions and oral skills.

B. The library or informed public officials could be used as excellent sources of information for each side's case.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>Speaking by Doing, National Textbook Co., Skokie, Illinois<br>Population Bomb, Paul Ehrilich<br>Discussion and Debate, National Textbook Co., Skokie, Illinois<br>Science and Survival, Barry Commoner. Viking Press, N.Y., 1966, ICE RMC, 120Co.<br>Survival With Style, Bradford Angier. Stockpole Books, Washington D.C., 1972, ICE RMC 115Ar.<br><br>**Audio-Visual:**<br><br>New Highway Game, Educational Ventures, Inc., ICE RMC, SG #10<br>Urban Sprawl, Stuart Finley, Inc., ICE RMC, film #430 (21 min.)<br>Our Environment - Problem or Promise? AJ Nystrom & Co., Chicago, 1972. ICE RMC, Kit #52.<br><br>**Community:**<br><br>Public Library<br>State Historical Society, Madison, Wisconsin | |

E. S. E. A. Title III - PROJECT I-C-E 59-70-0135-4

**Environmental:**

**Integrated with:**

**CONCEPT NO.** 4 - Water

**SUBJECT** Language Arts (Beginner Level)

**ORIENTATION** Water, Water, Everywhere?

**TOPIC/UNIT** Poetry - (Interpretative Reading)

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Explain the significance of imagery, characterization, and figures of speech in the poetry they select for their reading.

Identify examples of each of the above in a poetry selection, if present.

**Affective:**

Find satisfaction in sharing an esthetic experience with others.

Deliberately examine a variety of poems to determine which presents the need for conservation of water in the best manner.

**Skills Used:**

1. Discussion
2. Oral reading

## STUDENT-CENTERED LEARNING ACTIVITIES

**In-Class:**

A. Students and teachers will discuss what makes an effective reading, such as the need for preparation, for fluency, for modulating the voice, projecting, and making a good appearance (stand erect, hands out of pockets, etc.)
   1. Students will select a poem which will emphasize man's or animals need for pure water.
   2. Students will then present their readings to the class.

Examples:

Modern Song Lyrics - Robert Frost
Rime Of the Ancient Mariner - Coleridge
Childe Harolde and Don Juan Byron
The Fisk - Elizabeth Bishop
To A Waterfowl - William Byron
At The Aquarium - Max Eastman

**Outside or Community:**

A. A speech teacher or forensics coach could be invited to share some pointers on successful poetic interpretation.
B. The teacher could have available on record or tape various samples of professional readings to aid the students in their work.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
| --- | --- |
| **Publications:**<br><br>Black Bird: Carol & Donald Carrick Dial Press, N.Y. 1973. ICE-RMC (120 ca.)<br>Conserving Our Waters and Clearing the Air, American Petroleum Institute, 1968, (ICE-RMC-170 Pe)<br><br>**Audio-Visual:**<br><br>Records-Interpretations of Poetry<br>Films:<br>The Stream-ACI films, Inc. N.Y. 1971 ICE-RMC 320 (15 min.)<br>Crisis of the Environment, The New York Times, 1970, KT 6 (5 filmstrips and records)<br><br>**Community:**<br><br>Forensics Coach | |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:**

**Integrated with:**

**CONCEPT NO.** 4 - Water

**SUBJECT** Language Arts (Intermediate)

**ORIENTATION** Water, Water, Everywhere?

**TOPIC/UNIT** Poetry - Original

## BEHAVIORAL OBJECTIVES

**Cognitive:**

View a film or slide presentation on water pollution and compose an original poem that illustrates what was seen.

**Affective:**

Deliberately examine and experiment with a variety of poetic forms using water pollution as a theme.

**Skills Used:**

1. Creative Writing
2. Synthesis

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. A film or water slide presentation, Suggestion - Liquid of Life, a beautiful set of water slides put to music, is available from Project ICE RMC - KT 47, on water pollution could be shown. Students would then be asked to write an original poem expressive of their reaction to the pictures seen.

B. Students could be taken to an area where either a beautiful pure water source or an ugly, polluted stream or river could serve as a stimulus to their poetic creativity.

**Outside or Community:**

A. A local poet - e.g.
   1. Poet - John Bennett St. Norbert College
   2. Doug Flaherty, U.W.O.
   3. R. Nicholas
   4. Frances May could be invited to share some of his poetry and writing expertise to aid students in producing their own poems.

B. Music played in the background might be helpful to set a mood if the poetry is being written as an in-class assignment.

C. Use ICE Field Activity Guide "Go Solo, Then Shape and Share!" Available from ICE RMC.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>Lindbergh, Anne Morrow, Gift From The Sea.<br>Graham, Thomas P. Ecological Effects Of Hot Water Discharged By An Electric Power Generating Plant.<br>Univ. of North Carolina, 1971<br>ICE RMC 140Gr.<br>Go Solo, Then Shape and Share, field activity ICE RMC.<br><br>**Audio-Visual:**<br><br>FILMSTRIPS:<br>Understanding Lakes and Lake Problems, Univ. of Wisconsin, ICE RMC, Kit #53.<br>FILMS:<br>The First Pollution, Stuart Finley, ICE RMC, film #450 (26 min.)<br>Still Waters, ICE RMC film #510<br>Atomic Power Today - Service With Safety, Nat'l AV Center, Washington D.C. ICE RMC film #420 (25 min.)<br><br>**Community:**<br><br>Sewage Treatment Plant; Atomic Energy Plant, Local Lake, Stream or River area. | |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:** **Integrated with:**

**CONCEPT NO.** 4 - Water **SUBJECT** Language Arts (Advanced)

**ORIENTATION** Water, Water, Everywhere? **TOPIC/UNIT** Poetry - Analysis

| BEHAVIORAL OBJECTIVES | STUDENT–CENTERED LEARNING ACTIVITIES | |
|---|---|---|
| | **In-Class:** | **Outside or Community:** |
| **Cognitive:**<br>Identify examples of the significance of water imagery contained in American Literature as it pertains to the analysis skills presented by the teacher. | A. Have the students trace the use of water imagery in the peotry of 19th, 20th Century American Writers such as:<br>Romantics - Emily Dickinson<br>Sara Teasdale<br>Longfellow<br>Contemporary - Frost<br>Jeffers<br>Rod McKuen<br>Sandburg | A. A college professor or a colleague skilled in poetry analysis could be invited in as a resource person to assist students in their work.<br>B. Local newspapers often feature original poetry in their Sunday special section. Teacher (or students) might compile an anthology of those using water imagery to share with the class. |
| **Affective:**<br>Attempt to identify common characteristics of water imagery as seen through the American poets' eyes. | B. Provide the students with a variety of water images taken from the poems of American authors; request students to fit images into poems provided (blank spaces where images originate).<br>Assignment forces students to analyze poetry and water imagery to correctly plug in the images. | |
| **Skills Used:**<br>1. Research<br>2. Analysis<br>3. Reading | | |

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| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>Elements of Poetry,<br>Brooks and Waner,<br>Doors to Poetry,<br>Chad Waish<br>Canoeing, Bushmaker K. & R. Ziebell.<br>D.C. Eaerest Jr.-Sr. H.S. Schofield, 1969. ICE-RMC: 160 De.<br>Water Quality Survey of Black Creek<br>adv. science class of Mr. Hansetet Seymour, Wis, 1971. ICE-RMC 150Ha.<br>**Audio-Visual:**<br><br>Filmstrips:<br>Soaps, Detergents & The Environment,<br>Soap Detergent Assn. 1971.<br>ICE-RMC FS-St. 15.<br>Films:<br>Rise And Fall Of The Great Lakes,<br>Nat'l Film Board of Canada,<br>New York. ICE-RMC 240 (40 min.)<br>The Gifts-U.S. Dept of Interior,<br>1970. ICE-RMC-280 (25 min)<br>Who Killed Lake Erie? BAVI, 1969 (50 min.)<br>**Community:**<br><br>Boating Enthusiast<br>Water Pollution Abatement Facility in Area | |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:** **Integrated with:**

**CONCEPT NO.** 5 - Air **SUBJECT** Language Arts (Beginner Level)

**ORIENTATION** How is the air around our community? **TOPIC/UNIT** Journalistic Skills - The Interview

| BEHAVIORAL OBJECTIVES | STUDENT–CENTERED LEARNING ACTIVITIES | |
|---|---|---|
| **Cognitive:** | **In-Class:** | **Outside or Community:** |
| Identify sources of information. Demonstrate procedures and techniques of getting information.<br><br>**Affective:**<br>Deliberately examine a variety of sources, preparatory to reporting.<br><br>Defend the argument that researching more than one source of information results in a more accurate basis for a written conclusion.<br><br>**Skills Used:**<br>1. Interviewing<br>2. Tape recorder use<br>3. Development of criteria<br>4. Determining community problems. | A. The students after adequate preparation, will interview people of the community who represent various economic, social, cultural and political statuses, taping their response to questions about air pollution. (See Division Street America by Studs Terkel, especially Kid "Pharaoh." Available in paperback) The tapes will be shared with the rest of the class.<br>B. Students will prepare a list of questions to be used in interviewing a community official of their taping or noting responses to questions posed regarding possible solutions to local air pollution problems. They will then arrange for and conduct their interviews (in person, by phone or by mail). A short oral report to the class on the results would be a fine sharing of learning. | Since this activity is basically an outside or community learning experience to be shared in class, no such activities are listed here |

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>Division Street America, Studs Terkel (Dell Paperback)<br>Reporting, Charnley<br>Community Planning Handbook, Ginn & Co., 1970. ICE RMC 110G.<br>Two Reporters Dig Those Crazy Clues, ICE Field activity.<br><br>**Audio–Visual:**<br><br>Environmental Pollution - Our World in Crisis, Ward's Natural Science Establishment, film-strip on aor pollution, (ICE RMC, FS St 1)<br>SMOG: The Air Pollution Game, ICE RMC SG 1.<br><br>**Community:**<br><br>City Engineer, City Clerk Township Office<br>Dept. of Natural Resources; Green Bay<br>Observe examples of air pollution in community.<br>Talk to qualified people about what can be done to eliminate air pollution. | |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:** **Integrated with:**

**CONCEPT NO.** 5-Air **SUBJECT** Language Arts (Intermediate)

**ORIENTATION** Is Life Just A Breath Away? **TOPIC/UNIT** Journalistic Skills - The News Story and Feature.

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Apply the principles of organizational writing in a news or feature story.

**Affective:**

Believe in the importance of clear, accurate unbiased news reporting, the type required for development of mature attitudes toward the environment.

**Skills Used:**

1. Collecting facts
2. Writing news

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. After prepatory work, students are assigned to write a news story, feature or human interest interview on a local air pollution problem. When completed, the stories can form the basis of a class newspaper or periodical on that issue.

B. Students could be asked to collect samples of air pollution news or feature stories and create a bulletin board display with their clippings. They then might be instructed to use this bulletin board material as resource information for a comprehensive report on local efforts (or lack of same) in dealing with air pollution problems.

**Outside or Community:**

A. A local news reporter could be invited to share his experiences in covering stories related to the concept.

B. Local industrial representatives might serve as guests for a "meet the high school press" session in which students could quiz the guest on issues pertinent to local air pollution abatement efforts.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>Handbook for Environmental Action Reporting - Charnley<br>Yellow Pages of Learning Resources, Wurman, ed.<br>Science Study Aids, U.S. Dept. of Agr., Washington D.C. 1970. ICE RMC 130U.S.<br><br>**Audio-Visual:**<br><br>FILMSTRIP:<br>Ecology - Our Challenge, AVID Corp. ICE RMC, FS St #17 - number 1.<br>EQI - America Is In Trouble, Nat'l Wildlife Federation 1970. ICE RMC, Kit #9.<br>FILM:<br>The 2nd Pollution, Stuart Finley, Inc., ICE RMC, film #460 (22 min.)<br><br>**Community:**<br><br>Journalists<br>Industrial Management Speackers | |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

Environmental: Integrated with:

CONCEPT NO. 5 - Air SUBJECT Language Arts (Advanced)

ORIENTATION What can a citizen do to get clean air? TOPIC/UNIT Journalistic Skills - Editorial

| BEHAVIORAL OBJECTIVES | STUDENT–CENTERED LEARNING ACTIVITIES | |
|---|---|---|
| | In-Class: | Outside or Community: |
| **Cognitive:**<br>Construct a sound, logical comment based upon a community problem, e.g. clean air, using the media of editorial writing. | A. Editorial Writing<br>1. What problems are created by lack of clean air? Discuss.<br>2. Survey community for example of air pollution. Research examples for reasons why air pollution is allowed.<br>3. Discuss in what ways this one example creates other problems and why is it necessary in this community to allow them to pollute.<br>4. Write editorials or Letters to the Editor urging the curbing of sources of air pollution in the community.<br>5. Have the class select the best editorial for the school paper or for local newspaper.<br>B. Have students submit letters to EPA or legislators on clean air topics--see attached sample. | A. Editorials from newspapers could be used as samples to help students get started.<br>B. A local newspaper editor would be an ideal guest speaker to give students an idea of effective editorial technique and to point out the need for responsible, thorough editorial writing. |
| **Affective:**<br>Demonstrate his understanding of clean air as essential for life by writing a letter to the editor urging the curbing of air pollution sources. | | |
| **Skills Used:**<br>1. Writing<br>2. Evaluation<br>3. Determination of community problems. | | |

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>Sierra Club publication<br>Political Attitudes in Children by Robert Hess.<br>The Cultural Basis for Our Environmental Crisis, by Louis Moncrief.<br><br>**Audio–Visual:**<br><br>Videotape newscasts for analysis.<br>Filmstrip Kit:<br>The Effects of Air Pollution on Plant Life, US Dept. of Agr., 1972, ICE RMC - Kit 45.<br>Films:<br>Life in a Cubic Foot of Air, BAVI Caronet, 1958 (10 min)<br>Air Pollution, BAVI, 1968 (11 min)<br>Poisoned Air, BAVI 1966 (50 min)<br><br>**Community:**<br><br>Local news people of TV, radio and newspaper.<br>Library (materials on various cultures and their attitudes toward the environment). | |

Letters to the Editor Department

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Mr. George Howlett, Jr.
1001 S. Webster Avenue
Green Bay, WI 54301

August 1, 1973

Editor
Green Bay Press Gazette
435 E. Walnut
Green Bay, WI 54301

Dear Sir:

The Honorable Congressman Harold Froehlich of the 8th Wisconsin District has in a news release reported that the U. S. Forest Service should contribute monies to local governments within national forest boundaries. He wishes to appear as "champion of local government". I take it that he infers local governments now receive no such funds in replacement for property taxes not collectable from federal lands.

That the record may be clear, the U. S. Forest Service is required by law to contribute to the support of local government out of timber sale and other receipts. The cited references are 35 stat. 260, 36 stat. 961, 38 stat, 441, 58 stat. 737. 64 stat. 87, 16 U.S.C. 500 as quoted from USDA handbook No. 20, 1964.

"Twenty five percent of all monies received during any fiscal year from each national forest shall be paid at the end of the year thereof by the Secretary of the Treasury to the State or Territory in which said national forest is situated, to be expended as the State legislature may proscribe for the benefit of the public schools and public roads of the county or counties in which the forest is situated".

I would ask the Congressman to investigate the existing laws before raising false issues. It would also be good for the editors of local papers to check whether the Congressman in his news releases is putting out publicity just to keep his name before the public or is dealing with a real problem about which he is able to do something.

Sincerely,

George Howlett, Jr.

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:** **Integrated with:**

**CONCEPT NO.** 6-Resources **SUBJECT** Language Arts (Beginning)

**ORIENTATION** Is Wealth Where You Find It? **TOPIC/UNIT** Group Discussion

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Give examples of local mismanagement of resources using techniques of discussion.

**Affective:**

Demonstrate awareness of the limitations of our natural resources, by citing several examples.
Alter his use of resources so that he uses wisely both non-renewable and renewable resources, when given the choice i.e. drinking from a glass, instead of a plastic throw away cup.

**Skills Used:**

1. Film study
2. Discussion

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. Show Film - Cry of the Marsh to class.
The teacher provides questions related to the film shown which evoke distribution of wealth and the need for careful Management of our natural resources.

Sample questions for Cry of the Marsh.

1. Why is the marsh being destroyed?
2. Where will the marsh creatures go?
3. Why did the film show repeated actions of the ducklings?
4. How does the director evoke sympathy for the main characters (ducklings)?
5. People who alter the marsh are called developers. Are they improving the area? Would you call their action an example of progress? Of good management? (continued)

**Outside or Community:**

A. A city, industrial or other budget director might be invited to address the class on expenditure priorities of his firm or municipality.
B. A land developer would make a great guest if students were prepared to question his firm's goals and values in their business ventures. Students should prepare questions beforehand.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|

**Publications:**

The United Nations and the Human Environment. (Free through Johnson Wax Foundation, Racine)

Ehrilich, Paul and Anne, Population Resources, Environment, Issues in Human Ecology, W.H. Freeman & Co., San Francisco, 1970. ICE RMC, 165Eh.

**Audio-Visual:**

FILMSTRIP:

Conservation, American Petroleum Institute, 1965-66, ICE RMC, Kit #8.

FILMS:

Tomorrow World Feeding - The Billions, Parts I & II. BAVI 1968, (51 min.)

Food For A Modern World, BAVI 1968, (22 min.)

Hungar in America, BAVI, 1968 (54 min.)

**Community:**

1. Land Developer
2. Budget Director

INCLASS (Continued)

6. If you came upon a similar situtation, what could (would) you do about it?

B. Show a video tape of a TV show dealing with the problem of uneven distribution of wealth. Have the class divide into groups, each of which prepares a set of 5 discussion questions based on the tape. The groups then exchange questions, discuss and record each set and return their work to the original questions for a grade.

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:** **Integrated with:**

**CONCEPT NO.** 6 - Resources **SUBJECT** Language Arts (Intermediate)

**ORIENTATION** What is the good life? **TOPIC/UNIT** Group Discussion

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Compare and contrast the life styles of actual and fictional characters illustrating the importance of natural resources by writing a paper, "How the main character's life style has been molded by the area in which he lives."

**Affective:**

Demonstrate awareness of the effect of resources through observing and discussing the natural resources in the student's immediate area.

**Skills Used:**

1. Reading
2. Discussion
3. Analysis

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. Student-centered, in-class activity.
   a. Have the class break up into groups and read the novels The Old Man and The Sea, The Pearl, and/or Of Mice and Men.
   Have each individual or group prepare a written paper dealing with the idea "How the main character's life style has been molded by the area (natural resources) in which he lives."
   1. His life style
   2. Mental attitude towards life and duty to one's self.

B. Divide class into groups and carry on discussion about student's life style and how the geographical location has influenced it. Appoint a spokesman (or let group choose) for each group to share the ideas presented. A class community profile could be an end product.

C. Use "Lifestyles Book Report" by Rosalie Shier, ICE RMC.

**Outside or Community:**

A. A member of the chamber of commerce would be a possible guest speaker. He could outline for the students the various attributes and opportunities of the student's own community (of which many are all too unaware!) A dialogue with students making suggestions as to the improvements for their age group in terms of community facilities might ensue.

B. In rural areas, a county agent might provide the students with a good overall picture of the leisure time facilities available for teenagers.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>Handbook for Environmental Action, Environmental Science Center, 5400 Glenwood Avenue, Minneapolis, Minn. 55422<br>Ten Years To Save Mankind, Dept. of Natural Resources, State of Michigan, Lansing, Michigan.<br><br>**Audio-Visual:**<br><br>Student-created collages of various people's use or misuse of land.<br><br>Films:<br>City And Its Region, BAVI, 1963 (28 min.)<br>City Reborn, BAVI, 1967, (22 min.)<br>Tahoe Today...And Tomorrow, BAVI, 1969, (15 min.)<br>We Like It Here, DNR, (27 min.)<br><br>**Community:**<br><br>Speaker - Indian leaders<br>Industry spokesman<br>DNR spokesman<br>Historical records - local, library, including pictures of given areas, then and now. | Outside or Community (Continued)<br><br>C. A community walk in which negative and positive aspects of community life are examined might be an excellent field trip activity. |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:** | **Integrated with:**

**CONCEPT NO.** 6 - Resources | **SUBJECT** Language Arts (Advanced)

**ORIENTATION** What is wealth in the city? | **TOPIC/UNIT** Group Discussion

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Identify language as a human resource affecting life using the analysis of a piece of fiction.

**Affective:**

Judgements as to his own responsibilities regarding language.
Accept the use of a language, dialect, etc. different from his own as being a legitimate way of communication.

**Skills Used:**

1. Reading
2. Discussion
3. Thinking
4. Analysis

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. Native Son - Wright
Manhattan Transfer - DosPassos
Invisible Man (Chapter I) Ellison

The student will create 3 questions based upon his understanding of the novel read to be used in general discussion focusing on the author's use of dialogue imagery, and descriptive language. A class secretary could be appointed to jot down the best examples cited during discussion.

B. If two classes are studying the same novel, it might be interesting to divide each class into groups, have each group formulate a section of a "dialect dictionary" and ask members of the other class to define the items listed. (The novel read would be the basis for the dictionary entries.)

**Outside or Community:**

A. Language - Local idioms could be collected and analyzed to indicate to students that they too use language which may be impossible for people unfamiliar with it to understand.

B. The record and/or film American Dialects could be a supplemental aid to the study of language.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
| --- | --- |
| **Publications:**<br><br>Thoreau's Writings.<br>The Story of Language, Mario Pei<br>American Dialects-Dictionary<br>Reader's Guide To Periodical Literature<br>Speaking by Doing.<br>National Textbook Company<br>Skokie, Illinois<br>(Shows all different speech formats.)<br><br>**Audio-Visual:**<br><br>Films:<br>The Green City-Stuart Finley, Inc., ICE-RMC: 441 (22 min.)<br>Death Be Not Land-McGraw Hill Films ICE-RMC: 490 (26 min.)<br>Ecology-The Game of Man & Nature<br>Urban Systems, Inc., 1970.<br>ICE-RMC-SC2 (simulation game).<br><br>**Community:**<br><br>Language Arts Teachers at all grade levels. | |

E. S. E. A. Title III — PROJECT I–C–E 59–70–0135–4

**Environmental:**

**Integrated with:**

**CONCEPT NO.** 7 - Land Use

**SUBJECT** Language Arts (Beginning)

**ORIENTATION** Quality of Life - Openended?

**TOPIC/UNIT** Propaganda and Advertising

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Differentiate between advertisement and commercials that develop attitudes which contribute to environmental quality and those that call on man to purchase commodities having adverse consequences.

**Affective:**

Aware of the environmental impact of advertised goods. Assume some responsibility for affect of advertising on the environment by listing items that were purchased as a result of an advertisement.

**Skills Used:**

1. Use of tape recorder
2. Discussion
3. Analysis

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. Students and/or teachers can tape a variety of commercials, class discussion of content appeal and persuasive tactics.

B. Discuss what would result if everyone did buy one certain product. How would this affect the economy? The population? Land use? Transportation facilities of that area?

C. Ask students to bring in examples of products with advertising they find attractive or unattractive.

D. ICE Field Activity "Bill Boards & Signs" see pp. 47 - 50.

**Outside or Community:**

A. Advertiser - Suggestion
Robert Sweetland
Director of Advertising
Schreiber Cheese

B. A Disc Jockey is always a welcome guest speaker. He could be asked to discuss advertizing's effect on radio and vice versa.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>Confessions of an Ad Man<br>From the People Who Gave You Pearl Harbor<br>The Selling of the President<br>Community Planning Handbook, Ginn & Co., 1970.<br>(For High school students, who want to do something about their neighborhood.)<br><br>**Audio-Visual:**<br><br>Ads from magazines for discussion<br>Tape recordings of commercials.<br>Pictures and art drawings of products.<br>Films:<br>Man Uses And Changes The Land<br>BAVI (coronet 1969) (#6889 11 min | |
| **Community:**<br><br>Local Newspapers for pictures of community advertizing. | |

PROJECT I-C-E
INSTRUCTION-CURRICULUM-ENVIRONMENT
1927 Main Street
Green Bay, Wisconsin 54301



Environmental Activity Model: BILLBOARDS AND SIGNS

Recommended Grades: 5-12

Author: Robert Warpinski

Concepts:
1. Energy
3. Carrying Capacity
8. Values and Attitudes
9. Management
11. Individual Acts
12. Stewardship

Integrated with:
1. Social Studies
2. Mathematics
3. Art
4. Language Arts
5. Business Education
6. Home Economics

Objective(s):
In following through on activities suggested students will differentiate between kinds of signs and billboards, tally number encountered in a delimited area, and make distinctions on quality, merit, and need, as well as, offer suggestions for improvement.

Rationale/Directions

Advertising billboards, sales promotion, informational and directional signs are a part of our everyday life. They vary only in number and intensity in different types of communities. There is a need and a purpose for signs and billboards ranging from providing necessary information to pure and simple economic exploitation. In the worst sense, they can create a monster called visual pollution that is both a real physical threat and an affront to our aesthetic senses. The issue then is to descriminate between what is necessary and desirable and what is unsightly and offensive in the number, kind and type of signs and billboards. To accomplish this we need to focus and sharpen our senses of perception and visual discrimination. And finally, when necessary, we must be committed to some action in a rational way, at least to be able to offer some suggestions for improvement.

Billboards and Signs - Activity Worksheet
(Individuals or teams of 3-5)

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1. Identify the area limits of survey—draw a sketch of the streets, label them.

2. Take one, or several pictures from a vantage point that best takes in the survey area. Locate your vantage point on sketch above by a Ⓧ.

3. Tally of commercial signs:

| a) Identify type of business | b) Number of signs for each |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| Total Number _____ | Total Number _____ |

4. Tally of public control, direction, information signs.

| 1) Identify kinds of signs | b) Number of each kind |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

Number of kinds _____ Total Number _____

5. Count and describe any other signs or billboards in the area not included in Items 3 or 4.

a)

b)

c)

d)

e)

6. From the list of signs/billboards noted before:

a) Select one most necessary and explain why:

b) Select one most unnecessary and explain why:

c) Select one most attractive and explain why:

d) Select one most unattractive and explain why:

7. Select one commercial establishment, critique its use of signs and make suggestions for improvement.

8. Comment briefly on total perception, recommend any improvements you would make and tell why.

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Resources: I-C-E RMC

| | |
|---|---|
| Film 170 | Noisy Landscape, 13½ min., color (Donated by NEW Chaper, American Institute of Architects) |
| 115 Jo | DeSchool Primer; Your City Has Been Kidnapped |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:** **Integrated with:**

**CONCEPT NO.** 7-Land Use **SUBJECT** Language Arts (Advanced)

**ORIENTATION** Leisure Time - Boon or Boondoggle? **TOPIC/UNIT** Propaganda and Advertising

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Design and advertise a product which, by its nature and by the advertising of it, would contribute to profitable use of leisure time and the betterment of the natural environment.

**Affective:**

Reevaluate his behavior in regard to evaluating and using leisure time products.

**Skills Used:**

1. Discussion
2. Comparison and contrast
3. Logical thinking
4. Organization
5. Logical, ethical, and pathetic proof

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. The student will be asked to design a product which can be used during leisure time.
B. The student will present the product to the class through several advertisements which use different techniques.
C. After each presentation, the class will be asked to analyze and identify the more effective approaches in selling.

**Outside or Community:**

A. A recreational vehicle salesman could be contacted to address class on the subject of use of leisure time and the effect of advertising technique on the selling of his product.
B. A commercial artist could be an excellent resource person for students to contact.
C. An art instructor might also be consulted for help with the students' designs.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>Lives and Loves of Dobie Gillis<br>"Love Is A Fallacy"<br>Max Schulman<br>Kimball, Richard, poster series on population problems. J. Weston Walch, publisher Portland, Maine 1971. ICE RMC 190 Ki 1-4.<br><br>**Audio-Visual:**<br><br>Films:<br>All of the People, All of the Time, BAVI #3345, 1950 (30 min.)<br>Adventuring in Conservation, BAVI #4912, 1959 (15 min.)<br>Last River, BAVI #2447, 1965, (29 min.)<br><br>**Community:**<br><br>Chamber of commerce<br>Advertising Agency Representative<br>Product Packaging Designer | |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

Environmental: Integrated with:

CONCEPT NO. 8 - Values and Attitudes SUBJECT Language Arts (Beginning)

ORIENTATION How does man view his world? TOPIC/UNIT Problem Solving

| BEHAVIORAL OBJECTIVES | STUDENT–CENTERED LEARNING ACTIVITIES | |
|---|---|---|
| | In-Class: | Outside or Community: |
| **Cognitive:**<br>Apply the basic problem solving techniques as a means of changing negative environmental attitudes. | A. The teacher will provide the students with several current ecological problems.<br>For example, local, regional or national ecological problems involving attitudes e.g. (recycling).<br>1. Students will group themselves to work on the problem of their choice.<br>2. After a solution is chosen, students will come together to report their findings.<br>B. Students will be asked to offer examples of local ecological problems from this list, each student will use the method of problem solving below to offer possible solution. Students will then be asked to group themselves according to their chosen problem areas and evaluate one another's solution choosing perhaps the best one or two suggestions.<br>(Continued) | A. Project ICE Environmental Ed. Specialist George Howlett would be a fine guest speaker to get students thinking in ecological problem areas.<br>B. A city planner could be quizzed by the class as he might help them become more aware of local ecological problems. |
| **Affective:**<br>Accept responsibility for the building of positive environmental attitudes. | | |
| **Skills Used:**<br>1. Research<br>2. Group discussion<br>3. Problem solving | | |

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| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>See attached sheets<br>pp. 52-54.<br>Saroyan, William<br>The Time of Your Life.<br><br>**Audio-Visual:**<br><br>Films:<br>Available from Univ. of Michigan AV Center, 416 Fourth St., Ann Arbor, Michigan 48103<br>The Ark, a film parable of a modern Noah, (20 min.)<br>Pollution is a Matter of Choice<br>NBC News Special (54 min.)<br><br>**Community:**<br><br>CESA Values Education Specialist (if available) | IN-CLASS (Continued)<br><br>1. Basic Techniques of Problem Solving.<br>1. Identify a problem<br>2. Suggest possible solutions<br>3. Choose one solution<br>4. Provide reasons for choice<br>2. See insert on creative thinking. |

## ENVIRONMENTAL PROBLEM AREAS

Air quality

Community structure (Human) (Natural)

Ecosystem stability

Ecosystem & Communities

Energy resources

Energy systems

Environmental action

Environmental design

Environmental economics

Environmental ethics & aesthetics

Environmental law

Environmental quality for man

Estuaries

Fisheries resources

Forest resources

Land use & zoning

Mineral resources

Noise pollution

Ocean resources

Outdoor recreation

Pest control

Pollution control technology

Population (Human) (Wildlife)

Recycling

Regional planning

Resource conservation

Soil management

Solid waste management

Technology growth

Transportation systems

Urban growth

Water quality

Wilderness

Wildlife resources

## METHODS OF INCREASING CREATIVE THINKING

All of us are creative. The real problem lies in putting it to use. Only a few of us use more than a fraction of our creative ability. Poor health, inadequate motivation, mental laziness, lack of curiosity, and emotional mindedness may be factors relating to why our creative abilities are not used.

In order to increase our creativity, methods may be used. These methods are merely "tools"--they are not the mind.

### BRAINSTORMING

Brainstorming is an unintentionally uninhibited group approach.
Brainstorming was developed by Alex F. Osborn.
The objective of brainstorming is to produce the greatest number of ideas for later evaluation and development.
Brainstorming is a group approach to increase creative thinking. Four rules to follow:

1. Judicial judgement must be withheld--until thinking is carried out.
2. "Free-Wheeling" is welcomed.
3. Quantity (of ideas) is desired.
4. Combination and improvement (of ideas) are sought.

### GORDON TECHNIQUE

The Gordon Technique is a variation of brainstorming.
The Gordon Technique was developed by William J. Gordon.
The object is to produce one best idea and carry it through testing and evaluation, verification, development and production in the final form.
The Gordon Technique is a group approach.
Four guidelines:

1. The chairman leads a discussion on the subject which is central to the problem.
2. The chairman does not reveal the specific problem until the group is close to a satisfactory solution.
3. A free discussion follows.
4. When close to a solution, the chairman tells the specific problem and the group develops the idea in detail.

### ATTRIBUTE LISTING

Attribute listing is a technique used primarily for improving tangible things.
Attribute listing was developed by Robert P. Crawford.
Attribute listing can be used by individuals or by a group.
The objective is to better satisfy the original purpose of the object, or to fulfill a new need with it.
The procedure:

1. Choose an object to improve.
2. List the parts of the object.

3. List the basic qualities or features of the object and its parts.
4. Change or modify the attributes.

## CATALOG TECHNIQUE

The catalog technique is the reference to various catalogs as a means of getting ideas that will, in turn, suggest other ideas.

## FREE ASSOCIATION

Free association is a method of stimulating the imagination to some constructive purpose.
The objective of free association is to produce a quantity of intangible ideas, such as slogans, designs, names, etc.
The procedure:

1. Jot down a word, symbol, picture, which is related to the problem or subject under consideration.
2. Jot down another word, symbol, picture, suggested by the first one.
3. Continue in the same manner until an idea emerges.

## CHECK-LIST TECHNIQUE

The check-list technique is a system for getting ideas or clues by checking the items on a prepared list against the problem or subject under consideration.
The objective is to gather a number of general ideas for further development into a specific form.

## INSPIRED (BIG DREAM) APPROACH

The inspired (big dream) approach is a "breakthrough" approach which sometimes leads to great advancements.
The object of the inspired (big dream) approach is to make the greatest possible achievement for human benefit.
Three phases of the approach:

1. Think the biggest dream possible--something to benefit mankind.
2. Read, study and think about every subject connected with your big dream.
3. Drop down a dream or so, then put your dream into reality.

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:**

**Integrated with:**

**CONCEPT NO.** 8 - Values and Attitudes

**SUBJECT** Language Arts (Intermediate and Advanced)

**ORIENTATION** How does man view his world?

**TOPIC/UNIT** Problem Solving

| BEHAVIORAL OBJECTIVES | STUDENT–CENTERED LEARNING ACTIVITIES | |
|---|---|---|
| | **In-Class:** | **Outside or Community:** |
| **Cognitive:**<br><br>Apply the problem solving model in defined environmental attitude situations. | A. With a slide or picture presentation, the teacher presents visual examples of environmental problems. (prepared series suggestions at right).<br>1. Students in small groups, use the Problem Solving Model as outlined below and create a solution.<br>a. Statement of problem.<br>b. Divergent thinking-brainstorming of possible solutions.<br>c. Convergent thinking (solutions are narrowed to possible or practical)<br>d. A solution is accepted and applied<br>e. Evaluation of the success of the solution as applied<br>2. A full-class share session, with perhaps an attempt to evaluate and arrive at one class solution might be a good follow-up. | A. Suggested AV Presentations<br>1. Crisis of the Environment, New York Times, 1970. (ICE RMC Kit 6)<br>2. A Poster Series, by Richard Kimball on population problems. J. Weston Walch, Publisher, Portland, Maine, 1971. ICE RMC 190Ki - 1-4.<br>B. Use ICE Field Activity Guide "He Said What? Well, Here's What I Think!"<br>This activity helps students choose key ideas, translate them, and use other's views as stimulus for writing. |
| **Affective:**<br><br>Develop a code of behavior which encourages a change in other negative environmental attitudes. | | |
| **Skills Used:**<br><br>1. Research<br>2. Writing skills | | |

(Continued)

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|

**Publications:**

See Attached Sheets p. 52-54
Examining Your Environment (Series) Mine Publications. Inc. ICE-RMC 120 Ma 1-6.
Edberg, Rolf, On The Shred Of A Cloud, Harper and Row, 1966. ICE-RMC 100 Ed.

**Audio-Visual:**

Simulation Game:
The Game Of Sacrifice-by Education Ventures, Inc., ICE-RMC Sg. 11. (Excellent!)
Films:
Post No Bills Contemp Films McGraw Hill 330 W. 42nd St. New York 10022 (10 min.)
So Little Time BAVI #7337 1969 (32 min.).

**Community:**

Planned Parenthood
School Nurse
City Engineer, Etc.,

In-Class (continued)

B. The teacher provides the students with an extensive choice of stated, specific environmental problems. (See p. 55 for ideas.) Students apply the problem solving model in choosing a solution to the problem. Students present a paper to the class which outlines their work for evaluation and discussion.

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

Environmental: Integrated with:

CONCEPT NO. 9 - Management SUBJECT Language Arts

ORIENTATION Is Man an Effective Citizen? TOPIC/UNIT Role-Playing (9-12)

| BEHAVIORAL OBJECTIVES | STUDENT–CENTERED LEARNING ACTIVITIES | |
|---|---|---|
| | In-Class: | Outside or Community: |
| **Cognitive:**<br>Demonstrate man's ability to form and reform his environment through group role-playing. | A. Role-playing - Simulates a public hearing using as the basis a selected common interest problem from the local news media, one involving a wide variety of land use possibilities. e.g. The damming of a local river which could have any of the following potential effects:<br>1. Flooding of Wildlife habitat<br>2. Removal of landmark trees<br>3. Electrical power availability<br>4. Creation of swimming, fishing and campsite areas<br>5. Creation of watershed<br>6. Aesthetic value of landsite<br>7. Water rights above and below dam. | A. Community<br>Have students research, select, bring to class and read aloud, a news description of an environmental conflict of interest. Students interview members of the community to gain insight into their views relative to environmental problems being dealt with, and as a mean of substantiating the studetns role-playing experience.<br>B. Library<br>Research books, magazines, newspapers for related problems.<br>C. ICE Field Activity: Good Evening, Ladies and Germs! ICE RMC |
| **Affective:**<br>Participate, because he realizes man can change and manage his environment, in an environment betterment project, i.e. stream cleanup, bottle collection. | | |
| **Skills Used:**<br>1. Research<br>2. Role-playing<br>3. Listening | | |

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| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>Kline, Arlyn A., Encounters in Environmental Science, Mankato State College, 1974, ICE RMC 125 Ki.<br>Advanced Level:<br>The Forester At Work, ICE Field Activity, by George Howlett.<br><br>**Audio–Visual:**<br><br>American Forest Institute, Washington D.C. Set of 5 reel to reel tapes on forestry management. ICE RMC, Kit #46<br>FILM:<br>The Best We Can Do, American Institute of Architects, ICE RMC, Film #180 (30 min.)<br><br>**Con.munity:**<br><br>Local news media<br>TV<br>Newspaper<br>Radio<br>Townspeople<br>DNR State Dept. of Conservation<br>Dept. of the Interior<br>(Continued) | COMMUNITY (Continued)<br><br>Council of Governments Northeast Wisocnsin Planning Commission<br>Wisconsin Ecological Commission |

Environmental: Integrated with:

CONCEPT NO. 10 - Economic Planning SUBJECT Language Arts (Beginning)

ORIENTATION Are "Prophets" only Dollar Signs? TOPIC/UNIT Listening and Reading

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Demonstrate techniques of taking notes from verbal and written material provided by the teacher or guest speaker.

**Affective:**

Receptive to major ideas as expressed in oral or written environmental presentations by listening attentively.

**Skills Used:**

1. Listening
2. Note-taking

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## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. The teacher will explain the note-taking process and provide two note-taking exercises:
   1. Provide an article relevant to the concept for the students to read and take notes on.
   2. Read to the class a relevant article and ask them to take notes based on their listening.
   3. Suggested Topics:
      a. Population limitation vs. population explosion.
      b. Forests for industry vs. forests for recreation.
      c. Mass transportation vs. individual cars
      d. Drug abuse

**Outside or Community:**

A. A guest speaker could be asked to address the class on a successful example of ecologically sound economic planning. He could be asked to supplement his talk with written material prepared for the students.
   Suggested Speakers for activity B:
   1. Industrialists
   2. Mass transportation people
   3. District oil rep
   4. Rehabilitated drug user
   5. Birth rights advocate
   6. Newspaper Reporters

B. The students take notes on both the oral and written material supplied by the speaker.

C. The teacher could review the important facts presented to help the student evaluate their note taking success.

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| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>Silent Spring - Rachel Carson<br>America the Raped<br>Diligent Destroyers - Laycock<br>Population Bomb - Paul Ehrilich<br>Grapes of Wrath - John Steinbeck<br><br>**Audio–Visual:**<br><br>Soaps, Detergents, and the Environment, 1 filmstrip and cassette ICE RMC - FS St 15.<br>Transportation, 1 filmstrip and cassette ICE RMC FS St 20.<br>Topics in Ecology, - #4 Prosperity Pollution, ICE RMC Kit 1, filmstrip and record.<br><br>**Community:** | |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

Environmental: Integrated with:

CONCEPT NO. 10 - Economic Planning SUBJECT Language Arts (Intermediate)

ORIENTATION Are "Prophets" Only Dollar Signs? TOPIC/UNIT Listening and Reading

| BEHAVIORAL OBJECTIVES | STUDENT–CENTERED LEARNING ACTIVITIES | |
|---|---|---|
| | In-Class: | Outside or Community: |
| **Cognitive:**<br>Select appropriate data for use in substantiating a position in an oral presentation on the use, misuse, of the environment. | A. Students provide one sheet of data on an issue related to the concept, and give an oral presentation based on that data. The remainder of the class will listen and react.<br>Suggested Topics:<br>1. Population control<br>2. Drug abuse<br>3. Use of automobile and recreational vehicles<br>4. Water and air use and abuse<br>B. After reading a book, magazine article, or privately viewing a filmstrip on an issue related to the concept, students are asked to orally report the information contained therein to the class. Each "listener" will be asked to react to his peers, presentations by phrasing the main ideas presented in one sentence summaries. | A. The library's periodical index would provide the students with a choice of materials to present to the class.<br>B. Social studies teachers might be called on by individual students for ideas on pertinent issues and publications. |
| **Affective:**<br>Accept new environmental ideas | | |
| **Skills Used:**<br>1. Research<br>2. Oral presentation<br>3. Class discussion | | |

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| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
| --- | --- |
| **Publications:**<br><br>Population Bomb, Paul Ehrlich<br>Future Shock, Toffler<br>Diligent Destroyers, Laycock<br>Popular Science, Aug. '73<br>"How To Operate A Land Vehicle And Protect The Wilderness Too"<br><br>**Audio–Visual:**<br><br>Soaps, Detergents And The Environment-1 filmstrip and cassette (ICE FS-ST 15)<br>Transporation-1 filmstrip and cassette (ICE FS-St 20)<br>Topics In Ecology-#4 Prosperity-Pollution (ICE Kt 1)<br>Filmstrip and record<br><br>**Community:** | |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

Environmental:

Integrated with:

CONCEPT NO. 10 - Economic Planning

SUBJECT Language Arts (Advanced)

ORIENTATION How Do We Defend Our Beliefs?

TOPIC/UNIT Listening and Reading

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Identify fallacious reasoning used in the other groups presentations and develop a logical rationale.

**Affective:**

Actively participate in contributing related materials and examples to support his group's position on the effect of people's greed on the destruction of the environment. Listen carefully to a presentation on how a person's greed affects the environment.

**Skills Used:**

1. Research
2. Logical reasoning
3. Debate

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. Students can choose to read Our Plundered Planet, The Octopus, The Jungle, or Walden and then divide into groups according to the novels chosen. They then are asked to present a panel discussion dealing with the effects of human greed (short-sightedness) on individuals and groups. (Walden's more optimistic tone might be best saved for last!)

B. All students read Love is a Fallacy by Max Shulman. In small groups, the students prepare a group report on any economic plan (e.g. how to fight inflation) using one form of fallacious reasoning. Students should be prepared to challenge the ideas of their classmates by identifying areas where fallacious reasoning occurs.

**Outside or Community:**

A. Field trip to a Meat-Packing Plant, A protected ecological area (e.g. Thousand Island in Kaukauna) or a land development could be a possibility.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>Our Plundered Planet<br>The Jungle<br>Walden<br>The Octopus<br>Love is a Fallacy-Max Shulman<br>Elmer Gantry-Sinclair Lewis<br><br>**Audio-Visual:**<br><br>Films:<br>City and Its Region #5893 BAVI 1963 (28 min.)<br>Who Shall Reap? BAVI #4383, USDA, 1969 (28 min.)<br>Planning to Prosper-#1701 BAVI 1968 (20 min.)<br><br>**Community:**<br><br>Any kind of agency involved in planning could be a good source of information. | |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:**

**Integrated with:**

**CONCEPT NO.** 11-Individual Acts

**SUBJECT** Language Arts (Beginning)

**ORIENTATION** Am "I" Important?

**TOPIC/UNIT** Short Story - Organization

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Identify elements of structure in the short story. Create a short story, having the elements of structure, about the importance of himself in the betterment of the environment.

**Affective:**

Enjoy the short story's harmony in relation to man's harmony in the world.

**Skills Used:**

1. Outlining
2. Definition
3. Collage
4. Group cooperation

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. Students read a short story (e.g. Leader of the People by John Steinbeck.)
   1. After reading, the students will outline the basic elements of the short story (introduction, raising action, crisis, climax, denoumet).
   2. They will then be asked to divide into 5 groups, each of which will make a collage depicting one of the five elements of the story read by the class.

B. In terms of the short story read, students define the terms harmony and conflict. They then, as a group, create a montage for a bulletin board display of each concept.

**Outside or Community:**

A. The school art teacher might be called upon to offer suggestions to students as to effective collage creation.

B. A field trip to show contrast between harmony and conflict (e.g. a factory and then a lake area) might be helpful.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
| --- | --- |
| **Publications:**<br><br>Dawn of Remember Spring<br><br>Split Cherry Tree<br>Stuart<br>"Transcendentalism" ideas of<br>Ralph Waldo Emerson<br><br>**Audio–Visual:**<br><br>Slide & Record Series<br>Who Am I-#206,<br>Man & His Environment-#221<br>Man's Search For Identity-#225<br>Center for the Humanities, Inc.<br>White Plains, NY 10603<br><br>**Community:**<br><br>Any areas where conflict and/or harmony can be observed. | |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

Environmental:

Integrated with:

CONCEPT NO. 11 - Individual Acts

SUBJECT Language Arts (Intermediate & Advanced)

ORIENTATION Am "I" Important?

TOPIC/UNIT Short Story - Language

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Identify figures of speech within a short story to determine their value in communicating an idea more effectively.

**Affective:**

Respond both to intellectual and emotive statement within a short story about the individual and his environment. Criticize short stories that indicate that man can do little about his environment as an individual.

**Skills Used:**

1. Comparison and contrast essay
2. Analysis of Short Story

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. The student will read "A White Heron" by Jewett and will:
Compare and contrast the use of figurative language, (Imagery, tone, style, symbol, etc.) in the short story to the nonverbal, visual communication in the film essay Cry Of The Marsh, in a comparison contrast essay of 5 paragraphs

B. After reading a short story (such as the one mentioned above), the students will each be asked to select a figure of speech from the story and create a drawing which depicts the author's written words. The drawings could be grouped for a bulletin board, presented by each student in an oral "showing" or made into a classroom picture book.

**Outside or Community:**

A. Video tapes made of TV dramas that pertain to the orientation might supplement this assignment.

B. If available an author of short fiction (amateur or professional) might help students to locate and analyze figurative language more effectively.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
| --- | --- |
| **Publications:**<br><br>Eco-Fiction<br><br>Under The Lion's Paw And Other Stories, Hamlin Garland<br>Great Stories Of Action And Adventure - available from Madison News Agency.<br><br>**Audio–Visual:**<br><br>Films:<br>Cry Of The Marsh, ICE RMC #390<br>Recycling - Stuart Finley, Inc., ICE RMC #500 (21 min.)<br>Snow Goose, made for TV (video tape replay)<br><br>**Community:**<br><br>Soylent Green - a modern film (perhaps not available at area theaters)<br>Billy Jack - a modern film | |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:** **Integrated with:**

**CONCEPT NO.** 12 - Stewardship **SUBJECT** Language Arts (Beginning)

**ORIENTATION** Is ownership stewardship? **TOPIC/UNIT** Critical Reading

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Construct an ideal situation in which the stewardship principles are followed and explain how it would operate.

**Affective:**

Seek justice for the offended party, when his rights have been violated by another person's or industry's use of a part of the environment. Decide when presented with a situation in which private and public rights of ownership conflict, which position carries out the responsible stewardship concept.

**Skills Used:**

1. Analysis
2. Group Discussion
3. Community Resource Use

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. After reading The Butterfly Revolution (or another selection related to the concept) students will, in group discussion:
   1. Define the conflict of private vs. public rights as expressed in the book, determining which position would be most ecologically beneficial.
   2. They would then cite similar examples from other literature they have read, comparing decisions and outcomes in terms of the concept.

B. Should such a conflict be occurring locally, students can research the problems, take a stand on the issue and support their position through letters to the editor, phone calls to radio talk shows, or appearances at meetings.

**Outside or Community:**

A. Conservation agent, DNR representative, Forest Ranger, Agricultural Science teacher, Architect, local farmer or land developer could be invited as speakers to help choose an issue as suggested in "B" at left.

B. A field trip to any area under dispute (a land development, proposed recreational vehicle trail, suggested bicycle path, etc.) could become a natural outcome of the students' interest in a particular problem.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br><br>The Student As Nigger<br>Jerry Farber<br>Animal Farm, Orwell<br>Christ Climbed Down<br>Laurence Ferlingetti<br>Deliverance, James Dickey<br>In The Zone, Eugene O'Neill<br>Man's Control Of The Environment To Determine His Survival...Or To Lay Waste His Planet, congreesional Quarterly, Washington D.C. 1970. ICE-RMC-100 Ma.<br><br>**Audio-Visual:**<br><br>Harmony (ICE Film 340)<br>Junk Dump (ICE Film 310)<br>Simulation Game<br>New Town-Harwell<br>Assoicates ICE-RMC Sg. 8.<br><br>**Community:**<br><br>The possibilities here are endless. | |

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

Environmental:

Integrated with:

CONCEPT NO. 12 - Stewardship

SUBJECT Language Arts (Intermediate)

ORIENTATION Is ownership stewardship?

TOPIC/UNIT Critical Reading

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Identify human motives and behavior in a piece of fiction.

**Affective:**

Promote the adoption of a change in behavior toward a more responsible use of the environment.

**Skills Used:**

1. Expository essay
2. Listening
3. Group discussion
4. Analysis
5. Verbal communication

## STUDENT–CENTERED LEARNING ACTIVITIES

**In-Class:**

A. After student reading of the novel, Bless The Beasts And The Children, or another novel related to the concept, the students will group themselves according to choice of a character from the novel.
   1. They will identify and document with specific quotes, from the novel the motives upon which their character's behavior is based.
   2. They will then suggest ways in which other characters influenced or might have influenced their character's decision so that a better use of our natural resources might have been made.

B. After reading a short story dealing with the concept, the students will write an expository essay dealing with one characters' motivation and behavior in terms of the stewardship theme.

**Outside or Community:**

A. Students might be asked to bring in one recyclable item, and to ask one friend to help with the project. The majority of kids may have trouble getting a positive response. This can be a great opening for discussion of "How to get people to change behavior and attitude toward the environment."
   If time permits, students could discuss creative new uses for some of the recyclables, as well as school community reaction to their project. (e.g. Janitors who view this as nothing but a nuisance).

B. If possible a field trip to a plant that uses - recycled materials would be a good follow-up.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
|---|---|
| **Publications:**<br>Bible - Stewardship Parable<br>Bless The Beasts And The Children<br>Lord Of The Flies, Golding<br>Alas, Babylon, Frank<br>Pegman, Zindel<br>How To Conduct A Clean Up Campaign - free booklet, send postcard to:<br>Nat'l Wildlife Federation<br>Educational Services, Dept. YB<br>1412 Sixteenth Street N.W.<br>Washington, D.C. 20036<br>**Audio-Visual:**<br>Films:<br>Things Worth Saving<br>Nat'l Center for Resource Recovery ICE-RMC-370 (50 min.)<br>Recycling Resources<br>Continental Can Inc., 1971.<br>ICE-RMC-Sg. 6<br>**Community:**<br>Recycling Firm Representative | |

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EXERCISE #7

Title of Lesson: Reading with a Purpose

Purpose: To make students aware of more than the plot and characters in a book length work of fiction.

Behavioral Objectives: After this exercise, 75% of the students will be able to:

1. Understand the importance of the physical setting in work of fiction which they read.
2. Understand that they can learn much more about nature while reading for pleasure.
3. Give a book report which does something other than summarize the book's plot.

Materials Needed:

Library books with an emphasis on natural surroundings and wildlife such as Call It Courage, Island of the Blue Dolphin, Robinson Crusoe, Call of the Wild, The Yearling, Goodbye My Lady, When the Legends Die, Let the Hurricane Roar.

Activities:

1. Discuss the fact that writers often use vivid description of the surroundings in a story.
2. Read Stuart's short story, The Slip Over Sweater, to show how the writer has used description as a background for his story.
3. Visit a library to check out books in which climate, natural surroundings and/or wildlife play an important part.
4. Discuss books in small groups emphasizing the settings and pointing out how these had a bearing on the plot, the characters, etc.
5. Have students in each group pick the story which seemed to give them the most insight to nature and have the students who read this book be on a panel with those chosen from other groups. Have panel present a discussion on "The Importance of Setting in Works of Fiction."

Follow-up Activities:

Have students write a paragraph about the use of natural surroundings in works of fiction.

Evaluation:

Grade book reports by moving from group to group to determine whether students are describing setting and whether they are making the setting of their book vivid to the listeners. Evaluation in this exercise is informal and is not to be used in determining student grades.

E. S. E. A. Title III – PROJECT I–C–E 59–70–0135–4

**Environmental:** **Integrated with:**

**CONCEPT NO.** 12 - Stewardship **SUBJECT** Language Arts (Advanced)

**ORIENTATION** Is ownership stewardship? **TOPIC/UNIT** Critical Reading

## BEHAVIORAL OBJECTIVES

**Cognitive:**

Evaluate a piece of fiction according to selected literary criteria.

**Affective:**

Form responsible judgements regarding his environment and its use by individuals, companies and communities. Investigate the consequences of an action on the environment before his acts.

**Skills Used:**

1. Panel discussion and presentation
2. Expository essay
3. Visual presentation of a theme
4. Creation and evaluation of surveys and/or polls

## STUDENT–CENTERED LEARNING ACTIVITIES

### In-Class:

A. After having read and critically analyzed The Bear by William Faulkner, the students could:
   1. Present a panel which discusses the theme of stewardship of land.
   2. Prepare a paper on some issue of McCaslin's view of the land.
   3. Create a poster which portrays the stewardship theme.
   4. Poll and characterize the class's attitudes regarding the stewardship theme.

B. Alternate Short Story Choices
   1. "Under The Lion's Paw" Hamlin Garland
   2. "All Gold Canyon" Jack London
   3. "The Snow Goose" Paul Gallieo
   4. "Mrs. Starlings Problem" Pearl Buck
   5. "The Scarlet Ibis" Mary Andrews

### Outside or Community:

A. Public "Stewards" such as: Conservationists, DNR, Forest Ranger, Architect, local farmer or land developer could be invited as speakers.

B. A field trip to a natural area might be a good follow-up to show students effective stewardship in operation.

| SUGGESTED RESOURCES | CONTINUED OR ADDED LEARNING ACTIVITIES |
| --- | --- |
| **Publications:**<br><br>Faulkner, edited by Malcolm Cowley<br>Six Great Modern Short Novels, Dell Publications<br>Principles of Criticism, I. Richards<br>Patterns of Criticism, Victor Hamm<br><br>**Audio-Visual:**<br><br>Films:<br>Harmony, ICE RMC, film #340, (15 min)<br>Junkdump, ICE RMC, film #310, (15 min.)<br>Neighbors of the Land, BAVI #1477 1961, (22 min.)<br>Our Public Lands, BAVI #4623, 1961, (28 min.)<br><br>**Community:** | |